

Amendments to the Claims

1. (Original) A miniaturized multi-channel transmitter, comprising:
a signal processing chip, wherein the signal processing chip

includes:

a plurality of input preamplifiers;

a plurality of selective second amplifiers, wherein each
selective second amplifier is connected to a different input preamplifier;

a subcarrier oscillator connected to the selective second
amplifiers;

a timing circuit connected to the subcarrier oscillator;

a calibration circuit connected to the timing circuit; and

a 1-of-several decoder connected to the timing circuit.

2. (Currently Amended) The transmitter of claim 1, wherein each of
the ~~preliminary amplifiers~~preamplifiers includes an output terminal
connected to a pair of input terminals of a different selective second
amplifier.

3. (Original) The transmitter of claim 1, wherein each of the selective
second amplifiers includes a pair of input terminals connected to an
output terminal of a different preamplifier.

4. (Original) The transmitter of claim 3, wherein each of the selective
second amplifiers includes a select terminal connected to the ~~1-of~~
~~several~~1-of-several decoder.

5. (Original) The transmitter of claim 4, wherein each of the selective
second amplifiers includes an output terminal connected to an input
terminal of the subcarrier oscillator.

6. (Original) The transmitter of claim 1, wherein the subcarrier oscillator includes an input terminal connected to an output terminal of each of the selective second amplifiers and the calibration circuit.

7. (Original) The transmitter of claim 6, wherein the subcarrier oscillator is connected to first and second monostable multivibrators.

8. (Original) The transmitter of claim 7, wherein the subcarrier oscillator includes:

a first clock terminal connected to the timing circuit; and
a second clock terminal connected to one of the first and second monostable multivibrators.

9. (Original) The transmitter of claim 1, wherein the timing circuit includes a first plurality of toggle-connected flip-flops.

10. (Original) The transmitter of claim 9, wherein the flip-flops are type D flip-flops.

11. (Original) The transmitter of claim 1, wherein the calibration circuit includes an input terminal connected to the timing circuit.

12. (Original) The transmitter of claim 11, wherein the calibration circuit includes a select terminal connected to the 1-of-several decoder.

13. (Original) The transmitter of claim 15, wherein the calibration circuit includes an output terminal connected to an input terminal of the subcarrier oscillator.

14. (Original) The transmitter of claim 1, wherein the 1-of-several decoder is connected to a select terminal of each of the selective second amplifiers and the calibration circuit.

15. (Original) The transmitter of claim 1, wherein the signal processing chip further includes:
 - a temperature circuit connected to the timing circuit; and
 - a reference circuit connected to the timing circuit.
16. (Original) The transmitter of claim 15, wherein the temperature circuit includes a select terminal connected to the 1-of-several decoder.
17. (Original) The transmitter of claim 16, wherein the temperature circuit includes an output terminal connected to an input terminal of the subcarrier oscillator.
18. (Original) The transmitter of claim 15, wherein the reference circuit includes a select terminal connected to the 1-of-several decoder.
19. (Original) The transmitter of claim 18, wherein the reference circuit includes an output terminal connected to an input terminal of the 1-of-several decoder.
20. (Original) The transmitter of claim 1, wherein the signal processing chip further includes first and second monostable multivibrators connected to the subcarrier oscillator.
21. (Original) The transmitter of claim 20, wherein the first and second monostable multivibrators are connected to the timing circuit.
22. (Original) The transmitter of claim 1, wherein the signal processing chip further includes an on-off switch.
23. (Original) The transmitter of claim 22, wherein the on-off switch is a magnetically activated switch.
24. (Original) The transmitter of claim 1, wherein the signal processing chip is an application specific integrated circuit.

25. (Original) The transmitter of claim 24, wherein the signal processing chip is a BiCMOS chip.
26. (Original) The transmitter of claim 25, wherein the signal processing chip has a length less than or equal to 2mm and a width less than or equal to 2mm.
27. (Original) The transmitter of claim 1, further comprising a substrate having the signal processing chip mounted thereon.
28. (Original) The transmitter of claim 27, further comprising a radio frequency oscillator mounted on the substrate.
29. (Original) The transmitter of claim 28, wherein the radio frequency oscillator includes an input terminal connected to an output terminal of the signal processing chip.
30. (Original) The transmitter of claim 28, further comprising an antenna connected to an output terminal of the radio frequency oscillator.
31. (Original) The transmitter of claim 30, further comprising a switch activator mounted on the substrate.
32. (Original) The transmitter of claim 31, wherein the switch activator is a hall-effect magnetic sensor.
33. (Original) The transmitter of claim 31, further comprising a housing that encloses the substrate.
34. (Original) The transmitter of claim 33, wherein the housing includes a base portion and a lid portion connected to the base portion.
35. (Original) The transmitter of claim 34, wherein the base portion includes a plurality of microterminals.

36. (Original) The transmitter of claim 34, wherein the lid portion is slidably connected to the base portion.

37. (Original) The transmitter of claim 33, further comprising a battery enclosed by the housing.

38. (Original) The transmitter of claim 37, wherein the transmitter has a length less than or equal to 10mm, a width less than or equal to 10mm and a thickness less than or equal to 5mm.